AMKASYN
Device Description
External Brake Resistor
AR 1000-50-F

Version: 2021/42
Part no.: 26891
Translation of the "Original Dokumentation"

AMKmotion
MEMBER OF THE ARBURG FAMILY

Imprint

Name: PDK_026891_BW_AR1000

Version:

Version	Change	Letter symbol
2021/42	• AMKmotion Design, Mail and Web Adresses	LeS

Previous version: 2017/04

Product version:

Product	Firmware Version (Part no.)	Hardware Version
AR 1000-50-F	-	

Reservation: We reserve the right to modify the content of the documentation as well as the delivery options for the product.

Publisher: AMKmotion GmbH + Co KG
Gaußstraße 37-39
73230 Kirchheim unter Teck
Germany

Phone +49 7021 50 05-0
Fax +49 7021 50 05-176

E-mail: info@amk-motion.com

Registration court: AG Stuttgart, HRA 230681, Kirchheim unter Teck,
Tax Id no.: DE 145 912 804

Complementary: AMKmotion Verwaltungsgesellschaft mbH, HRB 774646

Service: Phone +49 7021 50 05-190, Fax -193

For fast and reliable troubleshooting, you can help us by informing our Customer Service about the following:

- Type plate data for each unit
- Software version
- Device configuration and application
- Type of fault/problem and suspected cause
- Diagnostic messages (error messages)

E-mail service@amk-motion.com

Internet address: www.amk-motion.com

Content

1 Safety instructions

⚠ WARNING	
	**Risk of burns when touching hot surfaces!** The casing temperature, for example of the line filter, the choke or the brake resistor, can be more than 70 °C during and even after operation. Contact causes burns. **Steps to prevent:** • Make sure that the surfaces have cooled down before you touch. • Wear protective clothing such as gloves if hot parts need to be touched. • Fit a warning sign with warning hot surface. • Do not mount any flammable objects near the device.

2 Product presentation

A servo motor creates generative energy during braking, which is fed into the DC intermediate circuit. This brake energy is available to motorically running servo motors that are connected to the same intermediate circuit.
Excessive brake energy is fed back into the supply network by the supply module. No feedback is possible for supply modules without regenerative feedback or during line failure.
In this case, the supply module requires an external brake resistor by which the generative energy is converted into heat.

All AMK supply modules feature an internal brake transistor control and terminals for connecting an external brake resistor with temperature monitoring.

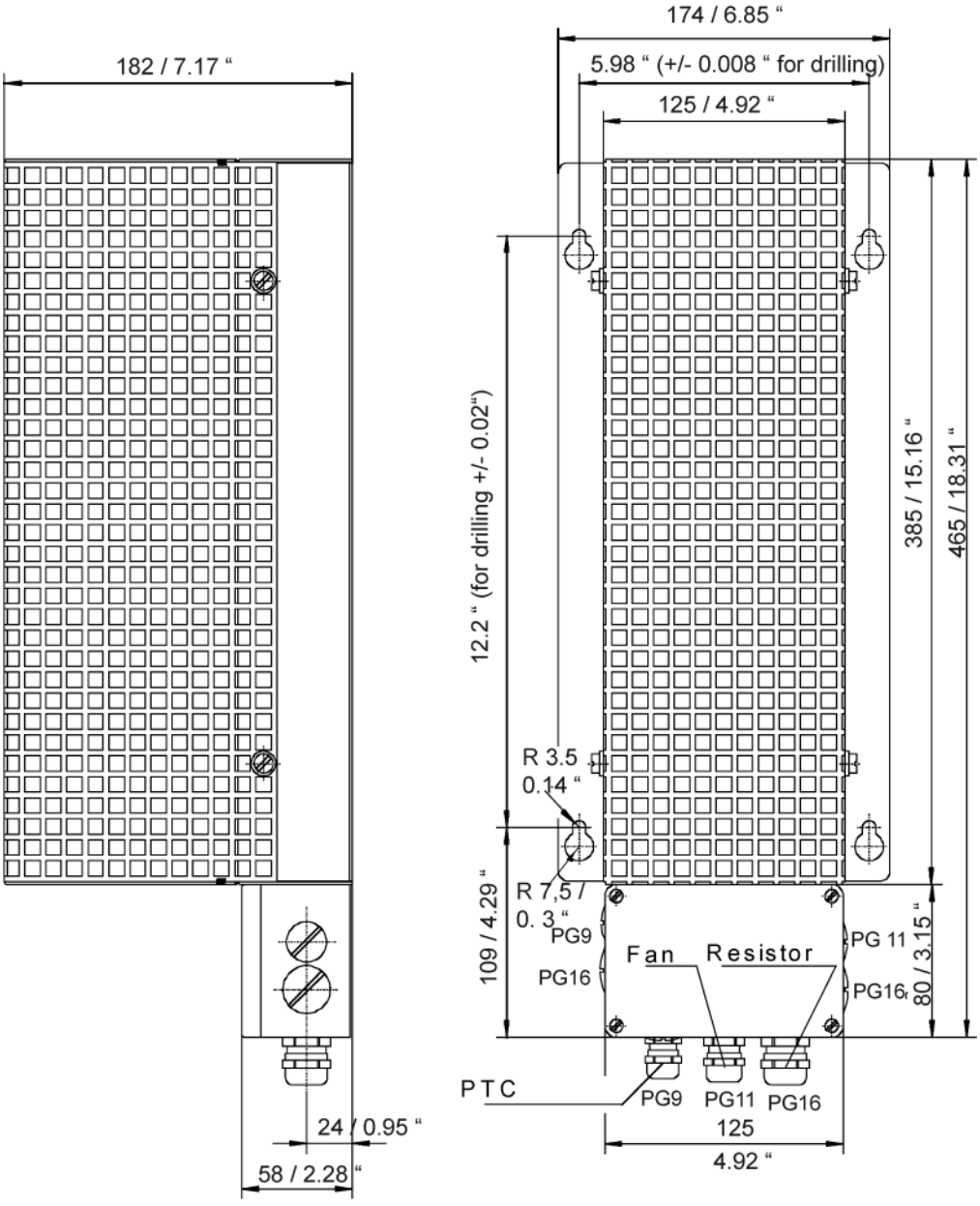
The braking resistance needs to be selected application-specific depending on the occurring brake energy.

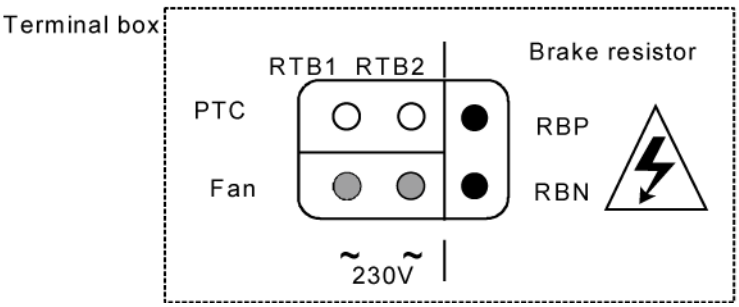
3 Technical data

	AR 1000-50-F
Order number	E586
Resistor	
Nominal resistance	50 Ω
Continuous braking power	1000 W
Peak braking power	KU: 12 kW for 3 s AZ: 10 kW for 3 s
Lifetime	approx. 56000h
Cable cross-section	2.5 mm^2 / AWG 12
Protection class terminal box	IP 30 [1)]
Protection class shielding cover	IP 20
Weight	approx. 5 kg
Thermal protector	
PTC Resistance (cold)	approx. 70 Ω
Cut-off temperature	approx. 70 C°
Cable cross-section	0.5 mm^2 / AWG 20
Fan	
Fan voltage	230V, 50/60 Hz
Fan power	12 W
Cable cross-section	1 mm^2 / AWG 18

1) IP 30 is valid only if the brake resistor is installed directly to a mounting plate without gap.
The mounting panel must not have any cutout > 2.4 mm in the area of the brake resistor.

3.1 Dimensions





4 Assembly

Avoid heat build-up.

The brake resistor must not be mounted in the cooling air flow of any electronic equipment!

The brake resistor is fixed directly on the mounting plate without distance!

The mounting panel must not have any cutout > 2.4 mm in the area of the brake resistor.

Attach a warning label: “Caution against contact”.

5 Wiring

Connect the brake resistor to power supply module KE, terminals RBP, RBN. Use a shielded cable. Shield connection at both ends

Connect the thermal protector to power supply module KE, terminals RT1, RT. Use a shielded cable. Only one shield connection at the power supply module.

You will find the cross-sections of the recommended cables at the chapter technical data.

Your opinion is important!

With our documentation we want to offer you the highest quality support in handling the AMKmotion products.
That is why we are now working on optimizing our documentation.
Your comments or suggestions are always of interest to us.
We would be grateful if you take a bit of time and answer our questions. Please return a copy of this page to us.

e-mail: Documentation@amk-motion.com
or
fax no.: +49 7021/50 05-199

Thank you for your assistance.
Your AMKmotion documentation team

1. How would you rate the layout of our AMKmotion documentation?

   (1) very good (2) good (3) satisfactory (4) less than satisfactory (5) poor

2. Is the content structured well?

   (1) very good (2) good (3) moderate (4) hardly (5) not at all

3. How easy is it to understand the documentation?

   (1) very easy (2) easy (3) moderately easy (4) difficult (5) extremely difficult

4. Did you miss any topics in the documentation?

   (1) no (2) if yes, which ones:

5. How would you rate the overall service at AMKmotion?

   (1) very good (2) good (3) satisfactory (4) less than satisfactory (5) poor

AMKmotion GmbH + Co KG
Phone : +49 7021/50 05-0, fax: +49 7021/50 05-199
E-Mail: info@amk-motion.com
Homepage: www.amk-motion.com